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## **Technical Bulletins and Informational Releases**

### **Technical Bulletins**

- Various technical bulletins have been issued by the lodging program in years past to clarify various requirements of the lodging rule. Issues covered by most technical bulletins have been clarified by rule revisions or have otherwise become obsolete and are rescinded. The following is a list of current technical bulletins. The full text follows in this section.
- G1-02: Three compartment Sink Requirements (Cabins and Other Lodging)
  - Establishments with kitchenettes provided in the rooms are not required to have a three compartment sink to wash, rinse and sanitize reusable utensils, glasses, etc.
- G1-03: Approval for Licensing Lodging Establishments
  - Continue to use the language in G1-03 regarding approval for lodging establishments.
  - All compliance plans shall be issued from BERL.
  - Use the language in G3-03 for the distribution of lodging inspection forms.
- G2-03: Backflow Prevention-Sprinkler Heads over Water Heaters (Amendment)
  - Private and Non-Community Water Supplies are not required to have backflow prevention devices for individual sprinkler heads installed over gas water heaters and/or furnaces.
  - Public Water Supplies shall be in compliance with DNR rules and regulations or local plumbing codes pertaining to backflow prevention.
- G3-03: Distribution of Lodging Establishment Inspection Forms (Rescinded)

### **Information Release**

- G1-02: Responding to Fecal Accidents in Swimming Pools is current and included in this section.

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## TECHNICAL BULLETIN NUMBER G1-02

DATE: June 21, 2002

TO: Environmental Public Health Specialist V's  
Local Public Health Agencies

FROM: Lyn C. Konstant, Interim Director  
Section for Environmental Public Health

SUBJECT: Three Compartment Sink Requirements (Cabins and Other Lodging)

CONTACT: Brittney Wallace, Lodging Coordinator  
[wallab@dhss.state.mo.us](mailto:wallab@dhss.state.mo.us)  
573-751-6090

Several inquiries have been received regarding the necessity of a separate three (3) compartment sink to wash, rinse and sanitize reusable utensils, dishes and glasses that are provided in guest rooms of cabins and other similar lodging establishments. Under 19 CSR 20-3.050, Sanitation and Safety Standards for Lodging Establishment, Section (C) Sanitation/Housekeeping states *“Prior to placement in the guest room, reusable drinking glasses and utensils shall be washed, rinsed and sanitized....”*

Most kitchenettes include, but are not limited to, a one or two compartment sink and/or dishwasher, reusable utensils, dishes and glasses for guest use. For lodging establishments that provide such amenities and do not supply any food staples in the guest rooms; a three (3) compartment sink used to wash, rinse and sanitize all reusable utensils, dishes and glasses between guest uses shall not be required.

However, if the lodging establishment provides services such as pre-stocking the guest rooms with staples, such as coffee, then a separate three (3) compartment sink to wash, rinse and sanitize those items used (i.e. coffeepots) shall be required.

For lodging establishments, such as a standard hotel/motel that provides coffeepots and/or reusable glasses in the guest rooms, the following requirements shall apply:

- Drinking glasses and/or utensils provided to rooms shall be single-service items, or
- Reusable glasses and/or coffeepots provided to rooms shall be clean and sanitary; and
- Prior to reusable glasses and/or coffeepots being placed in the guest room, they shall be washed, rinsed and sanitized; and
- After sanitization, all drinking glasses and utensils shall be air-dried and protected from subsequent contamination.
- Sanitation may be accomplished by one of the following methods:
  - (a). Use of a clean three (3) compartment sink or
  - (b). Use of a spray-type or immersion commercial dishwashing machine.

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## TECHNICAL BULLETIN NUMBER G1-03

DATE: March 24, 2003

TO: Environmental Public Health Specialist V's  
Local Public Health Agencies

FROM: Scott A. Clardy, Administrator  
Section for Environmental Public Health

SUBJECT: Approval for Licensing Lodging Establishments

CONTACT: Brittney Wallace, Lodging Coordinator  
[wallab@dhss.state.mo.us](mailto:wallab@dhss.state.mo.us)  
816-350-5445

Several concerns have been raised throughout the state regarding the approval process for an a lodging establishment, when it has been determined that the establishment has not met the minimum safety and sanitation standards outlined in 315.005 to 315.065, RSMo and 19 CSR 20-3.050. Since this program annually issues a state license, all inspections must be conducted prior to May 31<sup>st</sup>. The following criteria should be used to determine the approval status of a lodging establishment during an inspection:

1. If no violations are found and it has been determined that the establishment has met all applicable minimum safety and sanitation standards, the establishment should be marked approved.
  - a. A copy of the approved inspections shall be left with the establishment.
  - b. It will be the responsibility of the establishment to return a copy of the approved inspection along with an application and licensing fees to Central Office prior to May 31<sup>st</sup> to obtain a state- issued lodging license.
2. If a violation(s) is found and it has been determined that the establishment has not met all applicable minimum safety and sanitation standards, the establishment should be marked not approved.
  - a. A copy of the non-approved inspection shall be left with the establishment and a copy shall be sent to Central Office for processing.
  - b. A correct-by-date or follow up date shall be given to the establishment to make changes necessary to come into compliance with 315.005-315.065, RSMo and 19 CSR 20-3.050.
  - c. If a work plan is provided, correct-by-dates shall not extend beyond May 31<sup>st</sup> of that licensing year. Until the establishment has made all noted corrections and is found to have met all applicable minimum safety and sanitation standards, the establishment should be marked not approved.

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3. If the establishment has not met the minimum standards as outlined in a local ordinance or regulation pertaining to fire safety, electrical wiring, fuel-burning appliances, plumbing or swimming pools/spas, the establishment should be marked not approved.
  - a. A copy of the non-approved inspection shall be left with the establishment and a copy shall be sent to Central Office for processing.
  - b. A correct-by-date or follow up date shall be given to the establishment to make changes necessary to come into compliance with applicable local ordinances/regulations and 315.005-315.065, RSMo or 19 CSR 20-3.050.
  - c. If a work plan is provided, correct-by-dates shall not extend beyond May 31<sup>st</sup> of that licensing year. Until the establishment has made all noted corrections and is found to have met all applicable minimum safety and sanitation standards, the establishment should be marked not approved.

The second area of concerns involves timeframes in which an establishment should be given to make necessary corrections to violations found during an inspection. The following criteria should be used to determine an appropriate length of time to allow for corrections to be made:

1. No correct by date shall extend beyond May 31<sup>st</sup>.
2. If violations that pose a direct imminent health and/or safety hazard have been noted, the Environmental Public Health Specialist shall set the correct by date. This correct by date shall be within an accelerated timeframe, such as, immediately, 24 hours or a week. Once the time granted for corrections has expired, a follow-up inspection must be conducted to determine compliance.

If violations that pose an indirect health and/or safety hazard have been noted, the Environmental Public Health Specialist may set a mutually agreed to correct by date. This “correct by date” should be appropriate for the violation, such as, two weeks, one month or three months. Once the time granted for corrections has expired, a follow-up inspection must be conducted to determine compliance.

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**TECHNICAL BULLETIN NUMBER G2-03**  
**Amendment**

TO: Environmental Public Health Specialist V's  
Local Public Health Administrators  
Local Environmental Public Health Specialists  
MOALPHA

FROM: Scott A. Clardy, Administrator  
Section for Environmental Public Health

DATE: April 15, 2003

SUBJECT: Backflow Prevention-Sprinkler Heads over Water Heaters

CONTACT: Brittney Wallace, Lodging Coordinator  
[wallab@dhss.state.mo.us](mailto:wallab@dhss.state.mo.us)  
1-573-751-6090 or 1-816-350-5400

On December 19, 2002, our office mailed Technical Bulletin G4-02 Water Heaters which addressed numerous questions regarding Section H: Heating, Cooling and Air Condition Equipment, subsection (VII) *The furnace and water heater shall be located inside a fire resistant room. The room shall have a one (1)-hour fire rated door. Furnace rooms and rooms containing water heaters shall not be required to be fire resistive if an automatic sprinkler head is installed off the domestic water system and a smoke detector is located directly outside the room that is interconnected to the other smoke detectors throughout the facility.* In particular, it defined a fire resistant room and set parameters for the installation of a single sprinkler head over a water heater/furnace. In those parameters, it specifically stated:

- For all sprinkler systems containing chemicals, a DNR approved reduced pressure principle backflow prevention device must be installed.
- For new sprinkler systems or existing sprinkler systems that are modified with no chemicals, a DNR approved double check valve assembly must be installed.
- For existing sprinkler systems with no chemicals, no backflow prevention is required.

After consulting with the Department of Natural Resources (DNR), the following interpretations have been made with regards to backflow prevention devices installed on “limited sprinkler systems” as they relate to private and public water supplies (community and non-community). A “limited sprinkler system” is a partial fire suppression system installed and designated for a specified area. This may be a single sprinkler head over a water heater or multiple sprinkler

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heads over a water heater and furnace within a designated area, such as, a mechanical room or water closet.

A private water system or domestic well is a private water supply well that is constructed to meet minimum standards and is equipped with a pump that does not have the capacity to produce more than seventy (70) gallons of water per minute and services three (3) or less service connections. A private domestic water supply well that produces less than seventy (70) gallons of water per minute regardless of the use is a domestic well.

A public water system is a system for the provision to the public of piped water for human consumption, if this system has at least fifteen (15) service connections or regularly serves an average of at least twenty-five (25) individuals daily at least sixty (60) days out of the year. This system includes any collection, treatment, storage or distribution facilities used in connection with the system. A public water system is either a community water system, transient noncommunity water system or nontransient noncommunity water system. Any community or noncommunity public water supply well must be constructed according to Missouri Public Drinking Water rules.

- Community Water Systems are defined as a public water system, which serves at least fifteen (15) service connections or regularly serves an average of at least twenty-five (25) residents on a year-round basis.
- Transient Noncommunity Water Systems are defined as a public water system that is not a community water system which has at least fifteen (15) service connections or regularly serves an average of at least twenty-five (25) individuals daily on a year-round basis.
- Nontransient Noncommunity Water Systems are defined as a public water system that is not a community water system, which has at least fifteen (15) service connections or regularly serves an average of at least twenty-five (25) individuals daily at least sixty (60) days of the year.

### **Private Water Supplies**

- For “limited sprinkler systems” or a single sprinkler head over a water heater/furnace, no backflow prevention is required. It may be recommended to the establishment, however, it shall not be required or considered a violation if the establishment chooses not to install a backflow prevention device.

### **Public Water Supplies-Community**

The DNR regulates and is therefore the regulatory authority on community water supply systems. In many cases, a municipality or water district will be the administrative authority with regards to plumbing codes, which may include requirements for backflow prevention. Lodging establishments served by a community water supply shall be in compliance with DNR rules and regulations or local plumbing codes pertaining to backflow prevention. The following bullet

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points outline the level of backflow protection necessary for various fire suppression systems, as defined in 10 CSR 60-11.010 *Prevention of Backflow*:

- Whole building fire suppression systems containing chemicals require a DNR-approved reduced pressure principle backflow prevention device.
- Whole building fire suppression systems without chemicals require a DNR-approved double check valve assembly.
- Limited area sprinkler systems served by a separate supply line within the domestic plumbing require a DNR-approved double check valve assembly.
- Limited area sprinkler systems with an individual head served from an active internal domestic water line do not require backflow prevention.

While conducting inspections of lodging establishments served by community water supply systems, be mindful of the above requirements. If you determine that the appropriate level of backflow prevention is not installed upon a community water supply system, notify the DNR or municipality/water district to discuss what action(s) should be taken.

### **Public Water Supplies-Non-Community (Transient and Nontransient)**

- For “limited sprinkler systems” or a single sprinkler head over a water heater/furnace, no backflow prevention is required. It may be recommended to the establishment, however, it shall not be required or considered a violation if the establishment chooses not to install a backflow prevention device.

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## INFORMATIONAL RELEASE G1-02

The following are from the Centers for Disease Control and Prevention regarding how to handle fecal accidents in pool. These recommendations are solely for management of fecal accidents in disinfected recreational water venues. The recommendations do not address use of other nonchlorine disinfectants because there is limited pathogen inactivation data for many of these compounds. Because improper handling of chlorinated disinfectants could cause injury, appropriate occupational safety and health requirements should be followed.

### A. Formed stool (solid, nonliquid)

1. Direct everyone to leave all pools into which water containing the feces is circulated. Do not allow anyone to enter the contaminated pool(s) until all decontamination procedures are completed.
2. Remove as much of the fecal material as possible using a net or scoop and dispose of it in a sanitary manner. Clean and disinfect the net or scoop (e.g., after cleaning, leave the net or scoop immersed in the pool during disinfection). Vacuuming stool from the pool is not recommended\*.
3. Raise the free available chlorine concentration to 2 mg/L, pH 7.2--7.5, if it is <2.0 mg/L. Ensure this concentration is found throughout all co-circulating pools by sampling at least three widely spaced locations away from return water outlets. This free available chlorine concentration was selected to keep the pool closure time to approximately 30 minutes. Other concentrations or closure times can be used as long as the CT inactivation value<sup>†</sup> is kept constant (Table 1).
4. Maintain the free available chlorine concentration at 2.0 mg/L, pH 7.2--7.5, for at least 25 minutes before reopening the pool. State or local regulators may require higher free available chlorine levels in the presence of chlorine stabilizers such as chlorinated isocyanurates<sup>§</sup>. Ensure that the filtration system is operating while the pool reaches and maintains the proper free available chlorine concentration during the disinfection process.
5. Establish a fecal accident log. Document each fecal accident by recording date and time of the event, formed stool or diarrhea, free available chlorine concentration at the time or observation of the event and before opening the pool, the pH, the procedures followed to respond to the fecal accident (including the process used to increase free chlorine residual if necessary), and the contact time.



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## B. Diarrhea (liquid stool)

1. See A1.
2. See A2.
3. Raise the free available chlorine concentration to 20 mg/L<sup>†</sup> and maintain the pH between 7.2 and 7.5. Ensure this concentration is found throughout all co-circulating pools by sampling at least three widely spaced locations away from return water outlets. This chlorine and pH level should be sufficient to inactivate *Cryptosporidium* and should be maintained for at least 12.75 hours, equivalent to a CT inactivation value of 15,300. A higher or lower free available chlorine level/inactivation time can be used as long as a CT inactivation value equaling 15,300 is maintained for *Cryptosporidium* inactivation. State or local regulators may require higher free available chlorine levels in the presence of chlorine stabilizers such as chlorinated isocyanurates. If necessary, consult an aquatics professional to determine and identify the feasibility, practical methods, and safety considerations before attempting the hyperchlorination of any pool.
4. Ensure that the filtration system is operating while the pool reaches and maintains the proper free available chlorine concentration during disinfection.
5. Backwash the filter thoroughly after reaching the CT value. Be sure the effluent is discharged directly to waste and in accordance with state or local regulations. Do not return the backwash through the filter. Where appropriate, replace the filter media.
6. Swimmers may be allowed into the pool after the required CT value has been achieved and the free available chlorine level has been returned to the normal operating range allowed by the state or local regulatory authority. Maintain the free available chlorine concentration and pH at standard operating levels based on state or local regulations. If necessary, consult state or local regulatory authorities for recommendations on bringing the free available chlorine levels back to an acceptable operating range.
7. See A5

\* No uniform recommendations for disinfection of vacuum systems are available. However, if a vacuum system is accidentally used, the waste should be discharged directly to a sewer or other approved waste disposal system and not through the filtration system. The dilution effect of the pool water going through the hose may reduce the risk for high-level contamination of the vacuum system.

<sup>†</sup> CT refers to concentration (C) of free available chlorine in mg/L or ppm multiplied by time (T) in minutes. If pool operators want to use a different chlorine concentration or inactivation time, they need to ensure that CT values always remain the same. For example, if an operator finds a formed fecal accident in the pool and his pool has a free available chlorine reading of 3 mg/L and a pH of 7.5, to determine how long the pool should be closed to swimmers, locate 3 mg/L in the

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left column of the table and then move right and read the pool closure time. The pool should be closed for 19 minutes.

Example 2: The CT inactivation value for *Cryptosporidium* is 15,300, which equals (20 mg/L)(765 minutes) (i.e., 12.75 hours). After a diarrheal accident in the pool, an operator determines she can only maintain 15 mg/L. How long would hyperchlorination take? Answer:  $15,300 = CT = [(15)(T)]$ ;  $T = 15,300/15 = 1020 \text{ minutes} = 17 \text{ hours}$ .

§ The impact of chlorine stabilizers (e.g., chlorinated isocyanurates) on pathogen inactivation and disinfectant measurement is unclear and requires further investigation. State or local regulations on chlorinated isocyanurates use should be consulted.

¶ Many conventional test kits cannot measure free available chlorine levels this high. Use chlorine test strips that can measure free available chlorine in a range that includes 20mg/L (such as those used in the food industry) or make dilutions for use in a standard DPD (N, N-diethyl-*p*-phenylenediamine) test kit using chlorine-free water.

**Table  
1**

**TABLE 1. Free available chlorine concentrations and pool closure time\* required for disinfection of pools after a formed fecal accident**

Concentration (mg/L or ppm)	Pool closure time (minutes)
<0.4	105
0.6	72
0.8	55
1.0	45
1.2	39
1.4	34
1.6	30
1.8	28
2.0	25
2.2	24
2.4	22
2.6	21
2.8	20
3.0	19

\* Theoretical pool closure times for 99.9% inactivation of *Giardia* cysts by free available chlorine, pH 7.5, 25 C were derived from the Environmental Protection Agency's (EPA) Disinfection Profiling and Benchmarking Guidance Manual. EPA data were generated from original pathogen inactivation data and modeled for use in drinking water treatment facilities. These data were used to develop the pathogen inactivation table from which these pool closure times were derived. The applicability of these data to pools, where water and disinfectant mixing may not be uniform, has not been shown. Therefore, these pool closure times do not take into account "dead spots" and other areas of poor pool water mixing.